

[54] **METHOD FOR MAKING A BIODEGRADABLE ADHESIVE FOR SOFT LIVING TISSUE**

[75] Inventors: **James P. English**, Birmingham, Ala.; **Gerald W. McNeely**, Spartanburg, S.C.; **Richard L. Dunn**, Birmingham, Ala.

[73] Assignee: **Richards Medical Company**, Memphis, Tenn.

[21] Appl. No.: **90,861**

[22] Filed: **Aug. 28, 1987**

[51] Int. Cl.⁴ **C08G 18/30**

[52] U.S. Cl. **523/118; 528/54; 528/55; 528/81; 528/83; 528/905**

[58] Field of Search **523/118; 528/54, 55, 528/81, 83, 905**

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Primary Examiner—John Kight

Assistant Examiner—Sam A. Acquah

Attorney, Agent, or Firm—Kirkpatrick & Lockhart

[57]

ABSTRACT

A method for making an adhesive for use in joining soft living tissue including the steps of preparing a hydroxyl-terminated polyester by reacting a biodegradable monomer with a polyhydroxy polymerization initiator in the presence of an amount up to about 2.0 weight percent of a catalyst, and then preparing a diisocyanate-terminated prepolymer adhesive by reacting about 24 to 92 weight percent of the hydroxy-terminated polyester with about 8 to 76 weight percent excess aromatic diisocyanate. The polyester and the diisocyanate are preferably dissolved in an organic solvent prior to the mixture thereof in a ratio of solids to solvent of about 60:40. The polyester is a polymer or copolymer of lactide, glycolide or ϵ -caprolactone. The initiator is ethylene glycol, diethylene glycol, pentaerythritol or 1,1,1-tris (hydroxymethyl) ethane. The catalyst is stannous octoate, a zinc compound, an aliphatic tertiary amine, dibutyltin diacetate or 1,4-diazabicyclo [2,2,2] octane.

21 Claims, No Drawings